

Title: Apparatus and Method for.....

Inventors: Eugene A. Gregerson, et al.

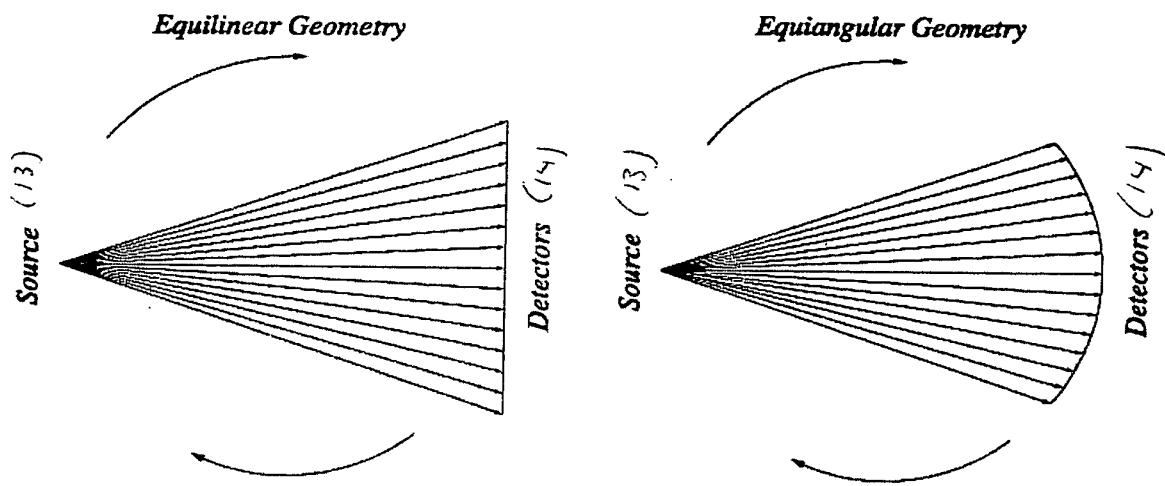


Fig. 1

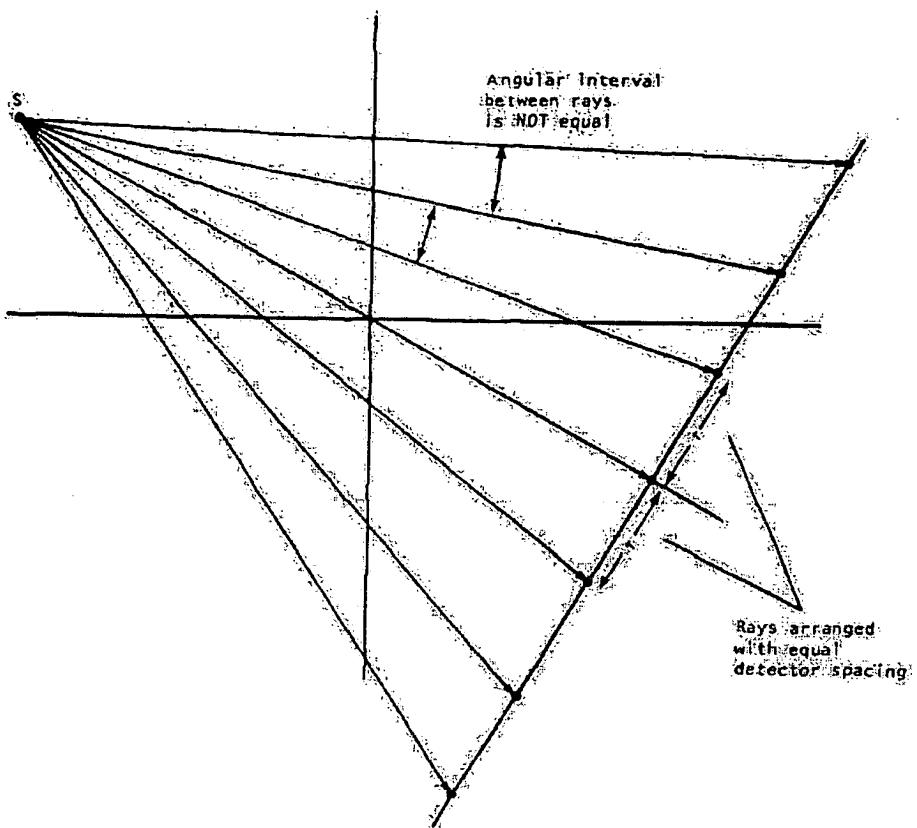


Fig. 2

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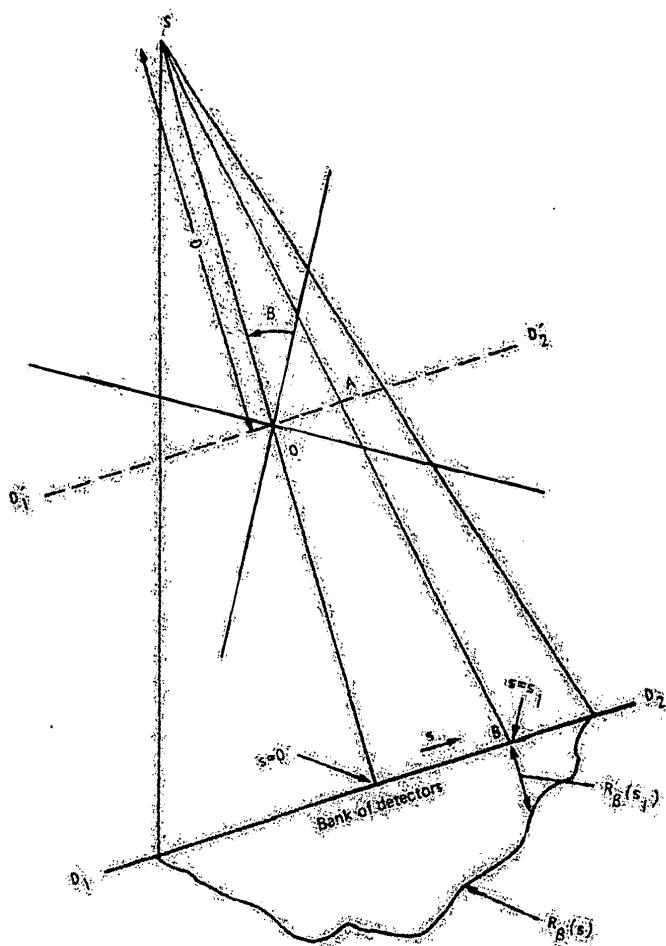


Fig. 3

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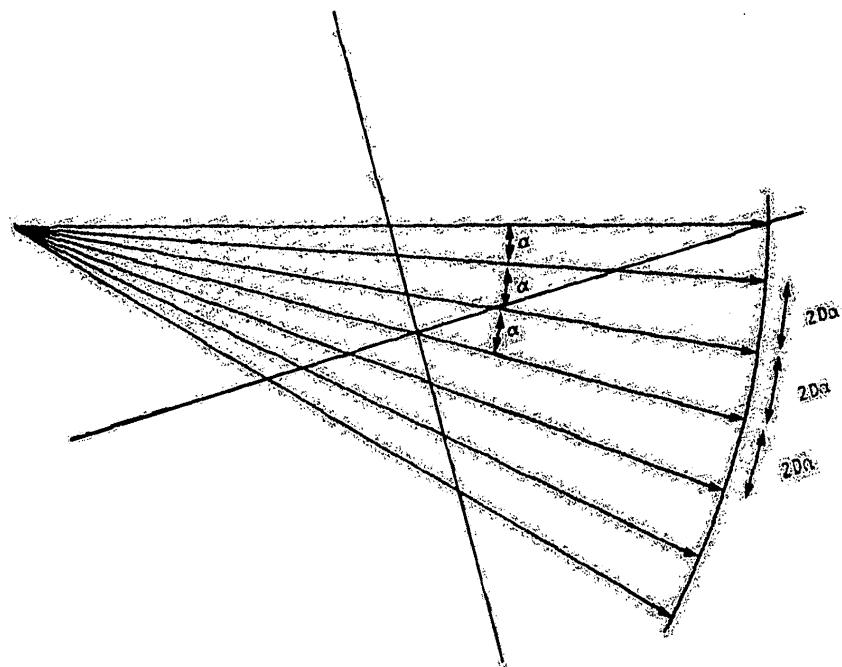


Fig. 4

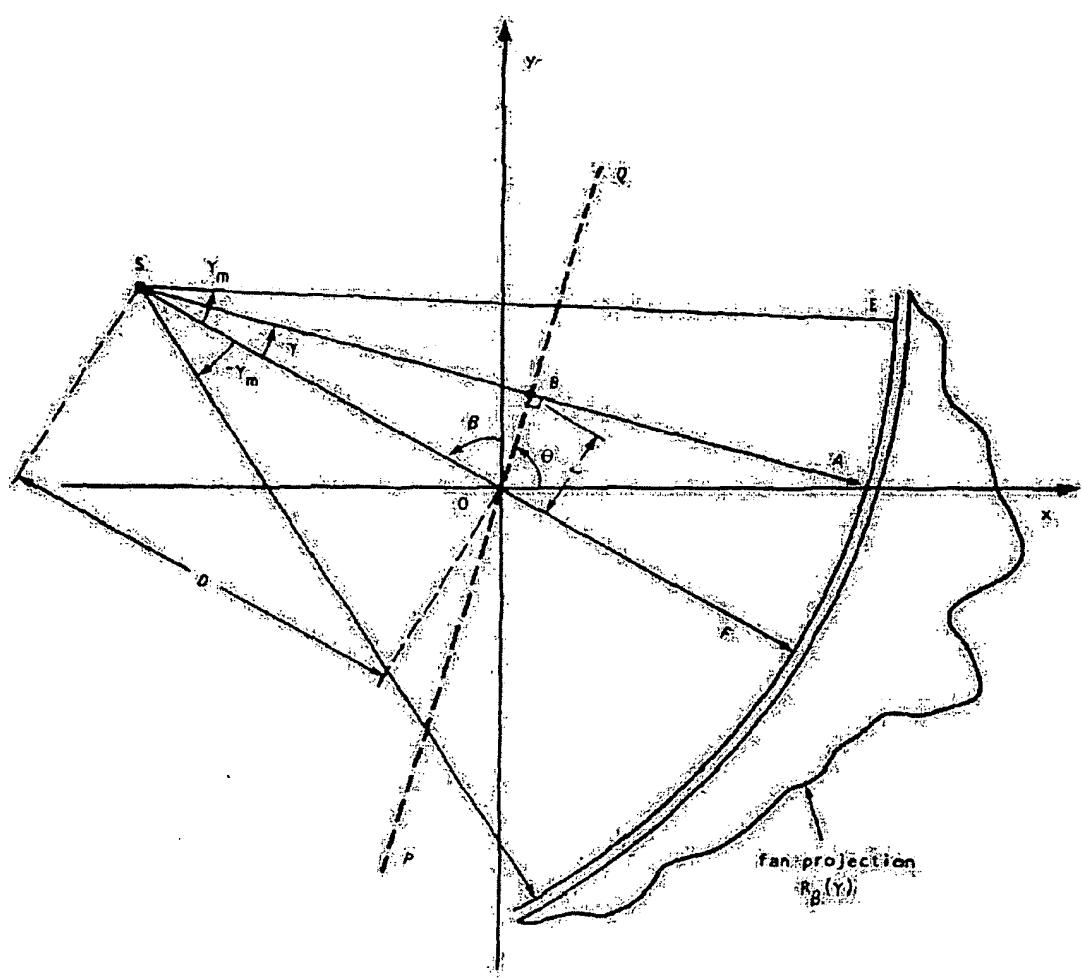


Fig. 5

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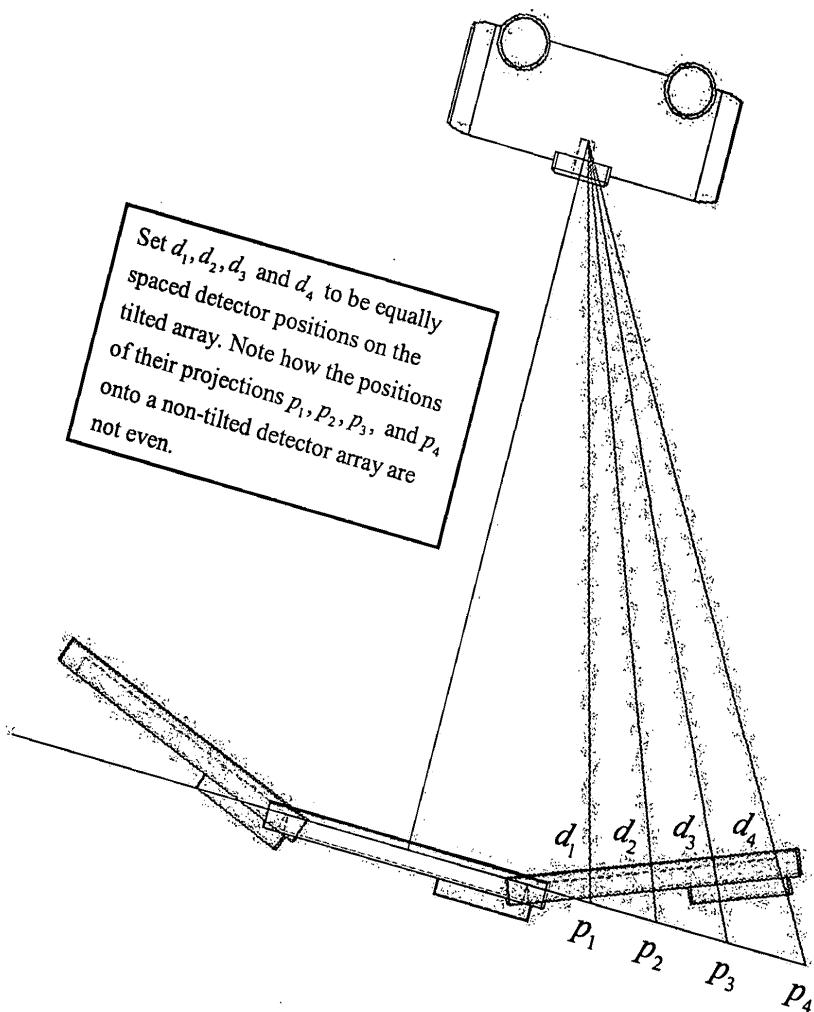
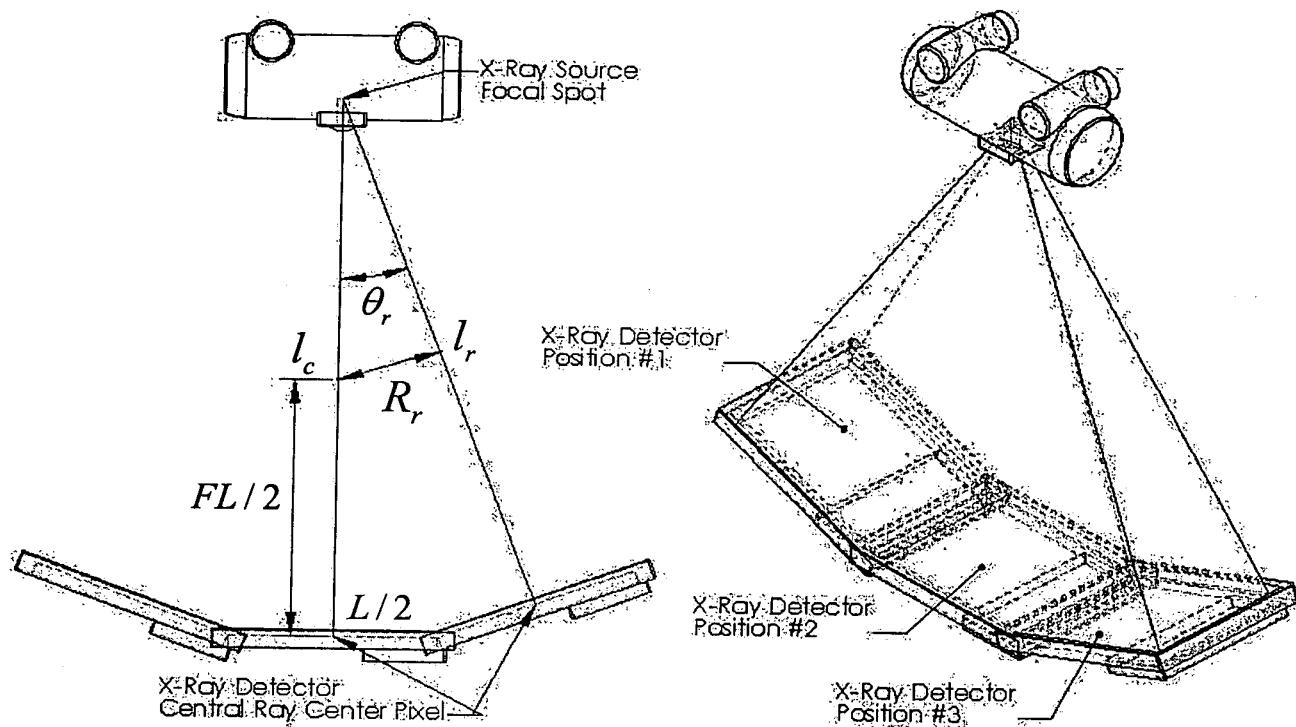


Fig. 6



Let $FL = 1000\text{mm}$ be the scanner focal length
and

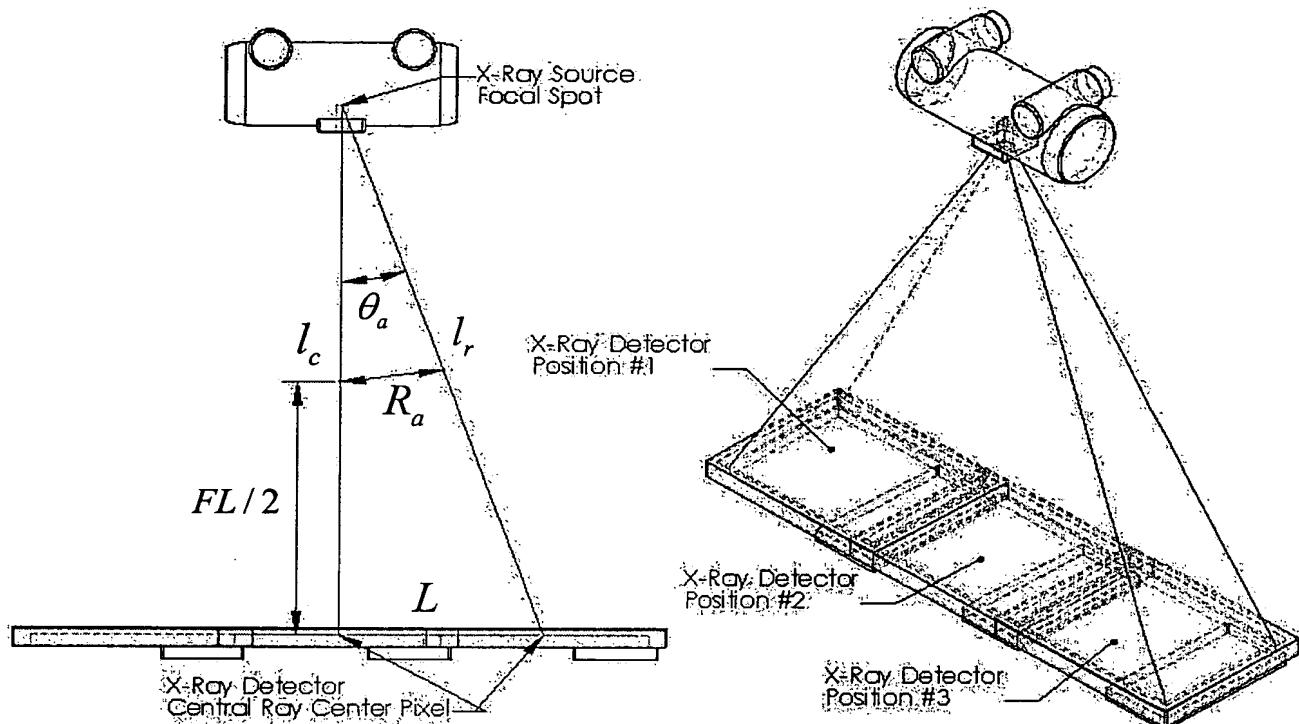
$L = 400\text{mm}$ be the length of the detector
then

$$\theta_r = 2 * \arctan((L/2)/FL) = 0.395\text{rad} = 22.632\text{deg}$$

and

$$R_r = (FL/2) * \sin \theta_r = 192.31\text{mm}$$

Fig. 7



Let $FL = 1000\text{mm}$ be the scanner focal length
and

$L = 400\text{mm}$ be the length of the detector
then

$$\theta_a = \arctan(L / FL) = 0.3804\text{rad} = 21.795\text{deg}$$

and

$$R_a = (FL / 2) * \sin \theta_a = 185.695\text{mm}$$

Fig. 8

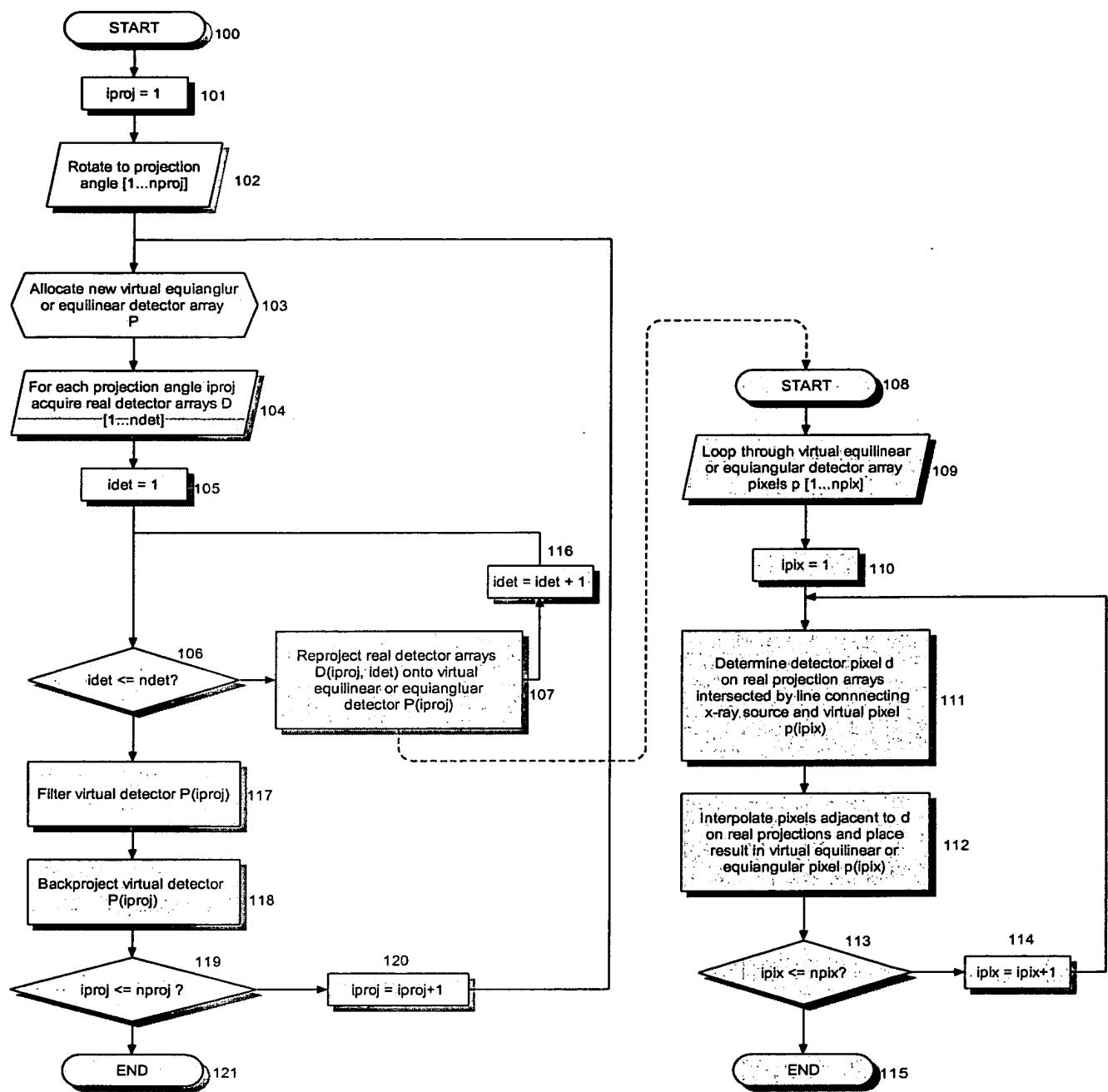


Fig. 9

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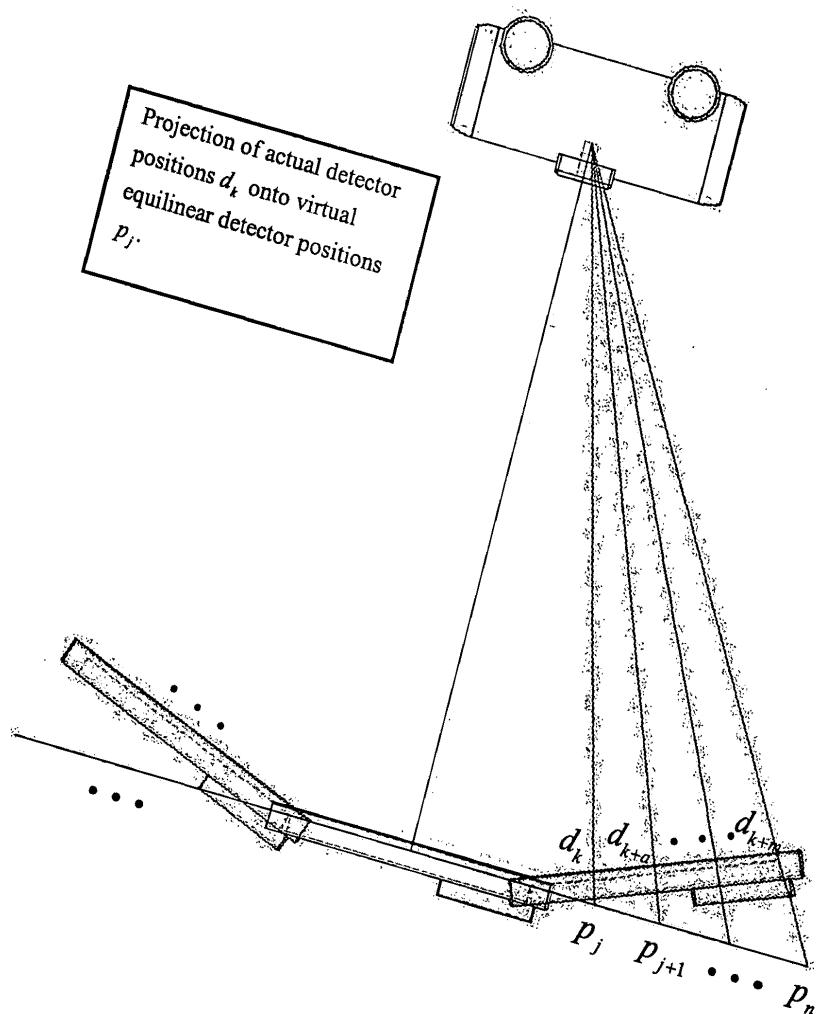


Fig. 10

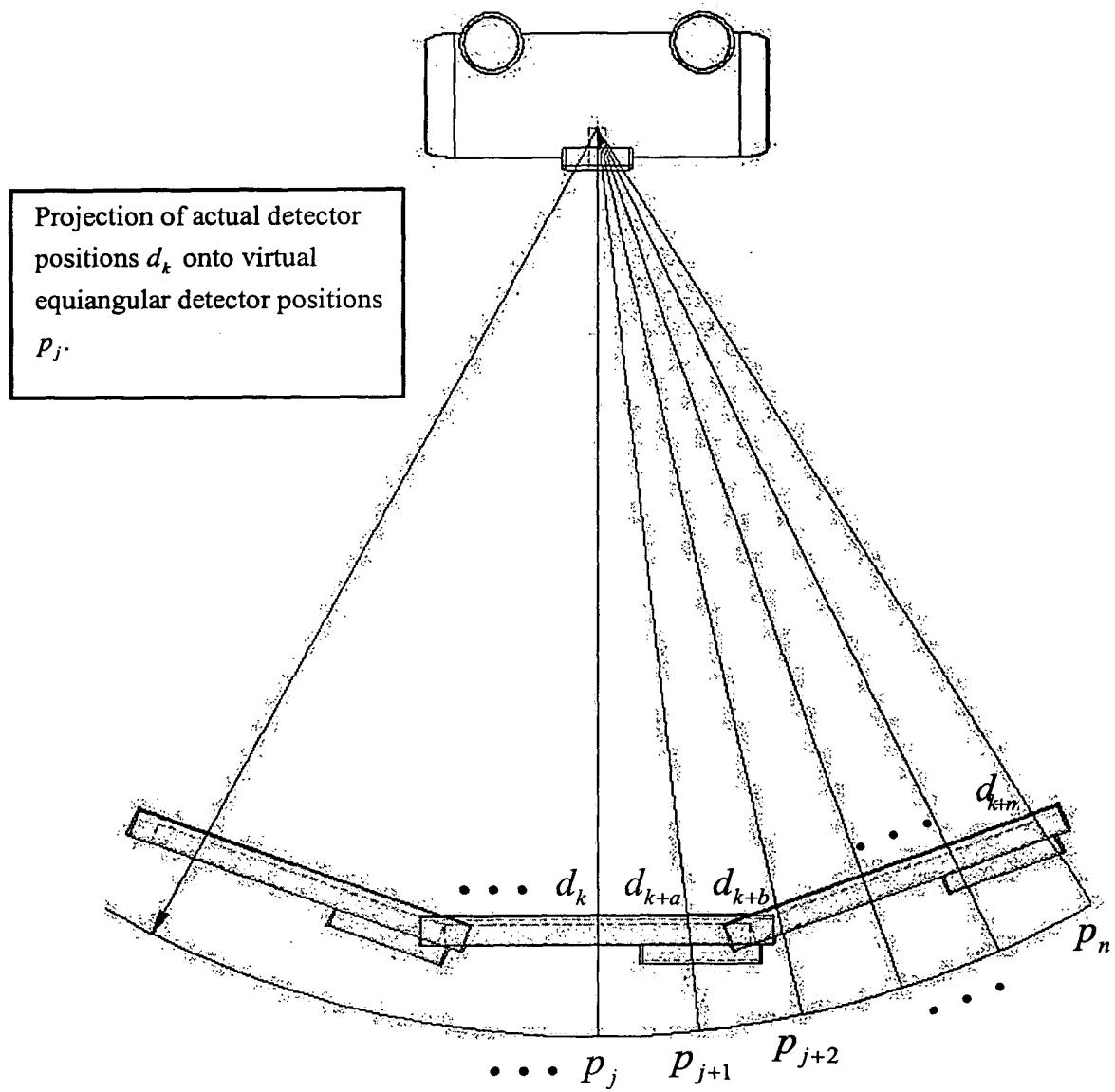


Fig. 11